

REMARKS

The Applicant is most grateful for the Examiner's careful and thorough consideration of the previous amendments. The Applicant also wishes to thank the Examiner for the opportunity to discuss the objections with her in a telephone interview.

Claim Rejections -- 35 USC 112

CLAIM 61:

The Applicant wishes to acknowledge the indefinite nature of the previously amended wording of Claim 61. In order to clarify the subject matter of the invention, the Applicant has redrafted the offending part of the wording in Claim 61 to clarify which form the invention's dissipating element is presented in. Namely, as commented by the Examiner, the current lines 11-15 of Claim 61 in relation to the dissipating element are now been amended to read:

“whereby the said dissipating elements are structures presented in a form selected from the group: expanded mesh; woven mesh;”

The Applicant submits that the amended wording of this part of Claim 61 now clearly defines the two groups of forms in which the dissipating element can take shape. In this way, the Applicant respectfully submits, the indefinite nature of the previous wording has been resolved and objection overcome.

CLAIM 65:

The second rejection under 35 USC 112 relates to Claim 65, which recited a limitation which did not have sufficient antecedent basis. The Examiner's comment has been fully accepted and Claim 65 has now been amended to exclude the offending form of

wording. Furthermore, as this Claim is dependent on Claim 64, which is dependent on Claim 63, which is dependent on Claim 61, an appropriate change to Claim 65 has been made to reflect the defined limitations now specified in Claim 61. Therefore, Claim 65 now reads:

“The high impact strength, elastic laminate system as set forth in claim 64,
wherein said dissipating element has a form of expanded mesh.”

NEW CLAIM 81:

As the Claim 61 has now been tightened to clearly define the invention’s dissipating element as consisting of a form selected from either of the two groups, namely ‘expanded mesh’ and ‘woven mesh’, and Claim 65 has been exclusively limited to ‘expanded mesh’, it is now respectfully being asked that allowance be given for defining a structure whereby the dissipating element will be made out of ‘woven mesh’. Therefore the proposed new Claim 81, which reads:

“The high impact strength, elastic laminate system as set out in claim 61,
wherein said dissipating element a form of woven mesh selected from the
group: plain; twill; satin weave.”

By determining and limiting the groups of forms in which the dissipating element could be presented, the Applicant has now clearly limited the invention to specific forms in which its dissipating element is presented. Therefore, The Applicant respectfully requests that the objection based on 35 USC 112 be withdrawn and the amended wording of the respective claims be allowed. The new claim 81 does not enter new matter, it only separates the description of the dissipation element made in a previously presented form of ‘woven mesh’.

As explained above, by finely defining the two groups of forms in which the dissipating elements could be presented, the Applicant submits that its invention is now fully distinguished from the cited prior art.

It is submitted that the amended Claim 61, and its dependent claims as amended, are now clearly distinguished from the cited prior arts of Calfee, Hollis and Chavannes. It is understood that the features of the Applicant's invention as specified in the present amendments are such that they would not have been obvious in light of the prior art.

Namely, by clarifying and specifying that the dissipating element in the present invention could be only made out of expanded and / or woven mesh, in combination with other specific elements of this invention (namely two outer layers, two inner plies and resin that occupies all the space in between these), the Applicant submits that his invention is non-obvious in light of the cited inventions.

In light of the new limitation, the Applicant respectfully invokes the arguments presented in his earlier submissions in respect to Calfee and Hollis.

As to Chavannes, the Applicant submits that the dissipating element in his invention does not equate with the dissipating element in Chavannes. Chavannes provides an invention that is a 'corrugated board-like structure, which includes a corrugated layer with reinforcing wire elements (ABST)'. The present invention differs as its dissipating element is made out of materials presented in a form of either 'expanded mesh' or 'woven mesh'.

Expanded metal mesh is achieved when a continuous single sheet of metal, a flat metal plate, is cut and stretched – resulting in apertures (openings) – while left connected at specific points, the so-called 'knuckles'. The knuckles are set at a uniform angle to the plane of the sheet, which results in added strength and provides a level of rigidity to the mesh, while distributing the load to the surrounding structures with which the mesh is combined, namely the surrounding inner plies in the laminate designed according to the present

invention. The expanded metal process takes regular steel or other material and expands it into a diamond or similar cut pattern, making it stronger, lighter, and flexible as part of a structure. Such mesh could be made from a material selected from the group consisting of aluminum alloys, steel alloys, zinc alloys, titanium alloys, copper alloys, magnesium alloys, nickel alloys, aluminum alloy matrix composites, thermoplastics, plastics and polymers.

Chavannes' invention is based on 'corrugated mesh sheets that are used to strengthen a laminate sheet'. In combination with Calfee, it has been objected that the present invention would have been obvious to one of ordinary skill in the art at the time of the invention. The present invention uses 'expanded mesh' and woven mesh'.

Neither Calfee or Chavannes teach expanded mesh as a dissipating element in combination with the other parts of the laminate structure (two outer layers, two inner plies and resin).

Neither Calfee or Chavannes teach woven mesh as a dissipating element in combination with the other parts of the laminate structure (two outer layers, two inner plies and resin). Woven mesh provides elasticity to the present invention's structure, so that it has an increased impact resistance. The weave can be plain, twill or satin.

The submitted drawings, especially the Drawing marked 3A, closely illustrates a cross-section of the laminate using multiple layers of the 'expanded mesh' as a dissipating element.

It is, therefore, submitted that the present invention as defined in the current amendments fully responds to all objections raised in the latest Office Action. It is respectfully submitted that the claims are now in condition for allowance, and a notice to that effect is earnestly requested.

Should the Examiner feel that there are further issues which may be resolved by means of telephone interview, the Examiner is cordially invited to telephone the undersigned.

The Applicant respectfully requests that the Examiner enters these amendments and considers and accepts the remarks / arguments as presented in this paper.

No new matter has been entered.

Respectfully submitted,

/mlg/

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